



Figure 3-4. Basin and Range Physiographic Province and Great Basin Subprovince.

upland, 6 to 10 kilometers (4 to 6 miles) wide and 35 kilometers (22 miles) long (DIRS 151945-CRWMS M&O 2000, pp. 2.2-1 and 4.4). This mountain is part of a volcanic plateau formed between about 14 million and 11.5 million years ago (DIRS 100075-Sawyer et al. 1994, p. 1304) known as the Southwestern Nevada volcanic field. Although Yucca Mountain is a product of both volcanic activity and faulting, the region exhibits evidence of a complex history of *deformation* associated with past interactions of crustal segments (plates) (DIRS 151945-CRWMS M&O 2000, p. 4.2-1). Geologic relations indicate that many of the current features and the landscape in the Yucca Mountain region formed between 12.7 million and 11.7 million years ago (DIRS 151945-CRWMS M&O 2000, p. 4.4-2). Remnants of the Timber Mountain caldera (one of the centers of the southwestern Nevada volcanic field from which most of the volcanic rocks on the surface of Yucca Mountain were erupted) and other calderas are north of Yucca Mountain (see Figure 3-5).